Serial No.: 10/003,209

Filed : October 30, 2001

Page : 2 of 12

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

and

1. (Currently Amended) A method of rendering a virtual three-dimensional (3D) scene, comprising:

tracking a positional change of a head of a user with respect to a display; transforming the virtual 3D scene in accordance with the positional change of the head;

rendering on the display a transformed virtual 3D scene;

wherein the virtual 3D scene is rendered in a perspective projection defined by a frustum bounded by a near plane and by a far plane located opposite the near plane, and wherein transforming comprises shifting the virtual 3D scene in a first direction of the user when the head moves from the first direction.

2. (Original) The method of claim 1, wherein transforming the virtual 3D scene comprises shifting the virtual 3D scene in a left direction of the user when the head moves in a right direction of the user.

Applicant: John J. Light
Serial No.: 10/003,209
Attorney's Docket No.: 10559-538001
Intel Docket No.: P12444

Serial No.: 10/003,209 Filed: October 30, 2001

Page : 3 of 12

3. (Original) The method of claim 2, wherein transforming the virtual 3D scene comprises shifting the virtual 3D scene in a right direction of the user when the head moves in a left direction of the user.

- 4. (Previously Presented) The method of claim 3, wherein a camera is attached to the display.
- 5. (Original) The method of claim 1, wherein transforming the virtual 3D scene comprises increasing a magnification of the virtual 3D scene when the head moves toward the display.
- 6. (Original) The method of claim 5, wherein transforming the virtual 3D scene comprises reducing the magnification of the virtual 3D scene when the head moves away from the display.
- 7. (Original) The method of claim 5, wherein the camera is positioned above the display.
- 8. (Original) The method of claim 3, wherein the virtual 3D scene is shifted with respect to the head by a factor of 10.

Applicant: John J. Light
Serial No.: 10/003,209
Attorney's Docket No.: 10559-538001
Intel Docket No.: P12444

Serial No.: 10/003,209 Filed: October 30, 2001

Page : 4 of 12

9. (Original) The method of claim 1, wherein tracking the positional change of the head

further comprises tracking an iridescent color in an object attached to the head.

10. (Previously Presented) The method of claim 1, wherein transforming the virtual 3D

scene comprises decreasing a magnification of the 3D scene when the head moves toward the

display and increasing the magnification of the 3D scene when the head moves away from the

display.

11. (Currently Amended) An apparatus for rendering a virtual three-dimensional (3D)

scene, comprising:

a memory that stores executable instructions; and

a processor that executes the instructions to:

track a positional change of a head of a user with respect to a display;

transform the virtual 3D scene in accordance with the positional change of the

head; and

render on the display a transformed virtual 3D scene;

wherein the virtual 3D scene is rendered in a perspective projection defined by a frustum

bounded by a near plane and by a far plane located opposite the near plane, and wherein

transform comprises shifting the virtual 3D scene in a first direction of the user when the head

moves from the first direction.

Serial No.: 10/003,209

Filed

: October 30, 2001 Page : 5 of 12

12. (Original) The apparatus of claim 11, wherein to transform the virtual 3D scene

comprises to shift the virtual 3D scene in a left direction of the user when the head moves in a

right direction of the user.

13. (Original) The apparatus of claim 12, wherein to transform the virtual 3D scene

comprises to shift the virtual 3D scene in a right direction of the user when the head moves in a

left direction of the user.

14. (Previously Presented) The apparatus of claim 13, wherein a camera is attached to

the display.

15. (Original) The apparatus of claim 11, wherein transforming the virtual 3D scene

comprises increasing a magnification of the virtual 3D scene when the head moves toward the

display.

16. (Original) The apparatus of claim 15, wherein transforming the virtual 3D scene

comprises reducing the magnification of the virtual 3D scene when the head moves away from

the display.

17. (Original) The apparatus of claim 15, wherein the camera is positioned above the

display.

Serial No.: 10/003,209

Filed : October 30, 2001

Page : 6 of 12

18. (Original) The apparatus of claim 13, wherein the virtual 3D scene is shifted with

respect to the head by a factor of 10.

19. (Original) The apparatus of claim 11, wherein to track the positional change of the

head further comprises to track an iridescent color in an object attached to the head.

20. (Previously Presented) The apparatus of claim 11, wherein to transform the virtual

3D scene comprises to decrease a magnification of the 3D scene when the head moves toward

the display and to increase the magnification of the 3D scene when the head moves away from

the display.

21. (Currently Amended) An article comprising a machine-readable medium that stores

executable instructions for rendering a virtual three-dimensional (3D) scene, the instructions

causing a machine to:

track a positional change of a head of a user with respect to a display;

transform the virtual 3D scene in accordance with the positional change of the head; and

render on the display a transformed virtual 3D scene;

wherein the virtual 3D scene is rendered in a perspective projection defined by a frustum

bounded by a near plane and by a far plane located opposite the near plane, and transform

Applicant: John J. Light Attorney's Docket No.: 10559-538001

Serial No.: 10/003,209 Intel Docket No.: P12444
Filed: October 30, 2001

Page : 7 of 12

comprises shifting the virtual 3D scene in a first direction of the user when the head moves from the first direction.

- 22. (Original) The article of claim 21, wherein to transform the virtual 3D scene comprises to shift the virtual 3D scene in a left direction of the user when the head moves in a right direction of the user.
- 23. (Original) The article of claim 22, wherein to transform the virtual 3D scene comprises to shift the virtual 3D scene in a right direction of the user when the head moves in a left direction of the user.
- 24. (Previously Presented) The article of claim 23, wherein a camera is attached to the display.
- 25. (Original) The article of claim 21, wherein to transform the virtual 3D scene comprises to increase a magnification of the virtual 3D scene when the head moves toward the display.
- 26. (Original) The article of claim 25, wherein to transform the virtual 3D scene comprises to reduce the magnification of the virtual 3D scene when the head moves away from the display.

Serial No.: 10/003,209

Filed : October 30, 2001

Page : 8 of 12

27. (Original) The article of claim 25, wherein the camera is positioned above the

display.

28. (Original) The article of claim 23, wherein the virtual 3D scene is shifted with

respect to the head by a factor of 10.

29. (Original) The article of claim 21, wherein to track the positional change of the head

further comprises to track an iridescent color in an object attached to the head.

30. (Previously Presented) The article of claim 21, wherein to transform the virtual 3D

scene comprises to decrease a magnification of the 3D scene when the head moves toward the

display and to increase the magnification of the 3D scene when the head moves away from the

display.